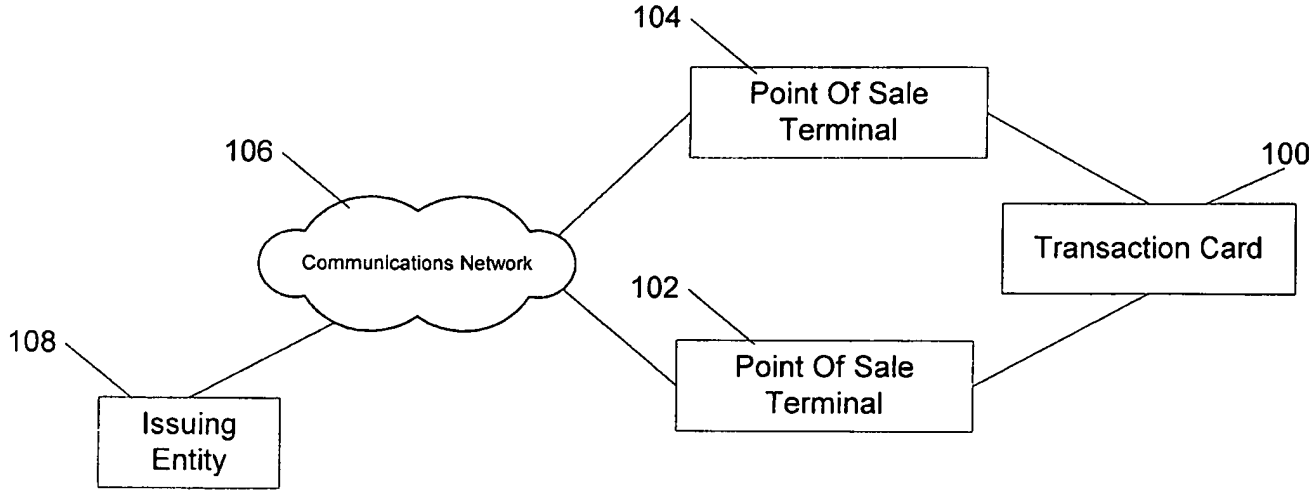

104
Point Of Sale Terminal
106
100
Communications Network
Transaction Card
102
108
Point Of Sale Terminal
Issuing Entity

FIG. 1A

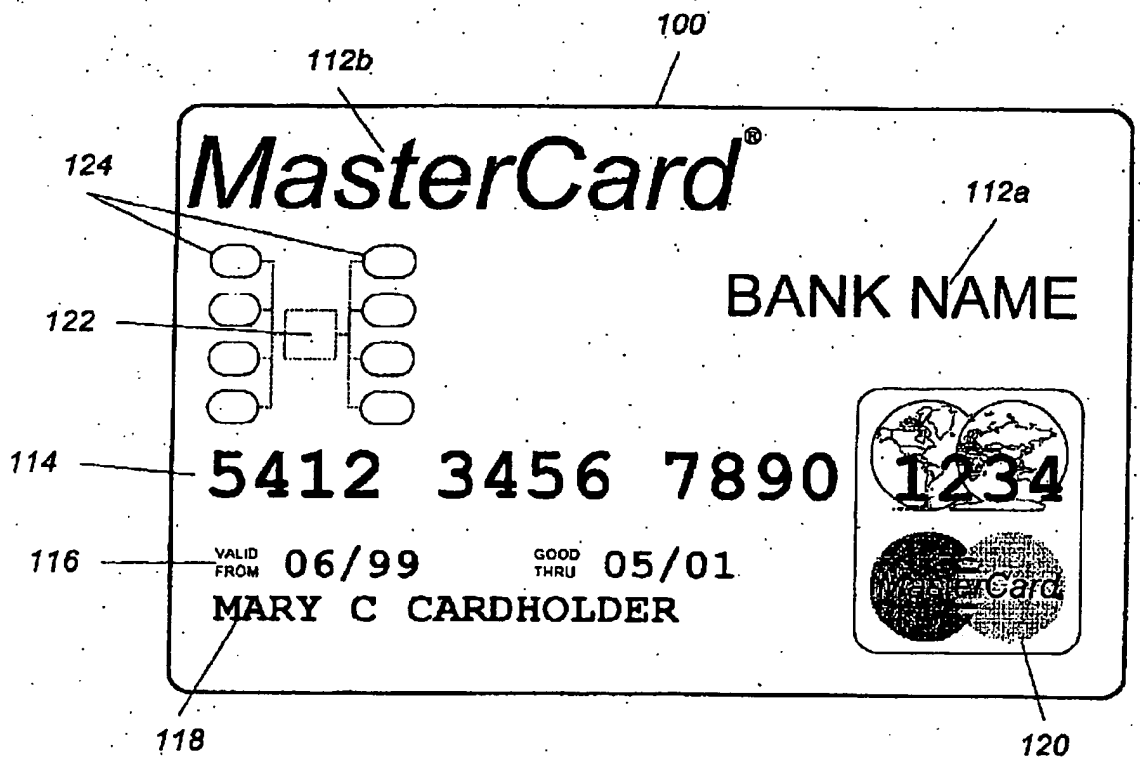

100
112b
MasterCard®
124
112a
BANK NAME
122
114
5412 3456 7890
1234
116
VALID FROM 06/99
GOOD THRU 05/01
MARY C CARDHOLDER
118
120

FIG. 1B

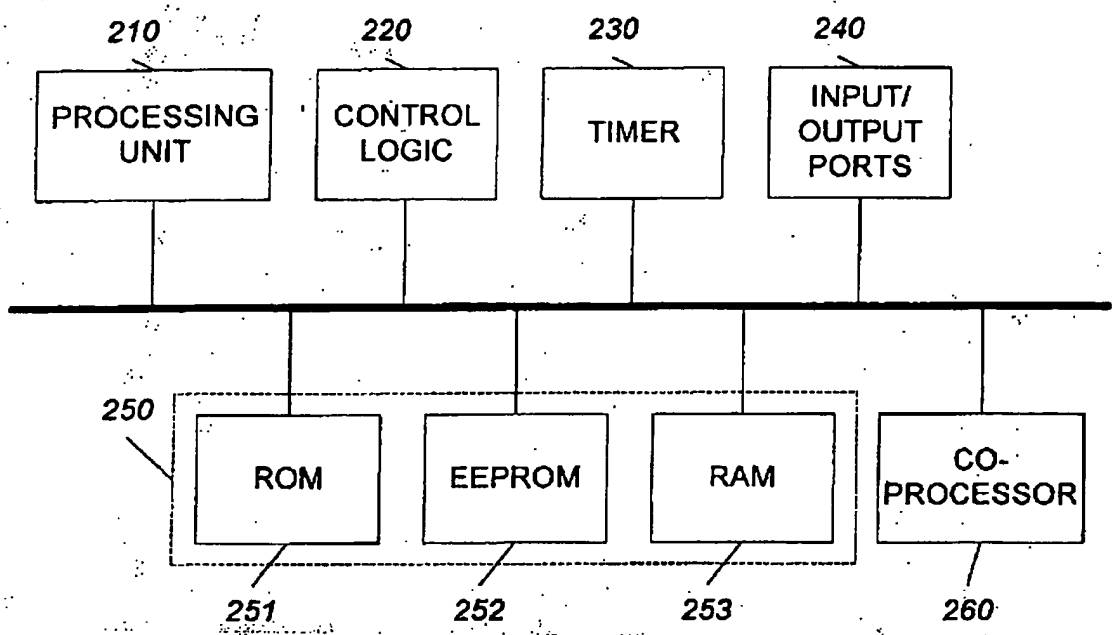

210
220
230
240
PROCESSING UNIT
CONTROL LOGIC
TIMER
INPUT/ OUTPUT PORTS
250
ROM
EEPROM
RAM
CO-PROCESSOR
251
252
253
260

FIG. 2

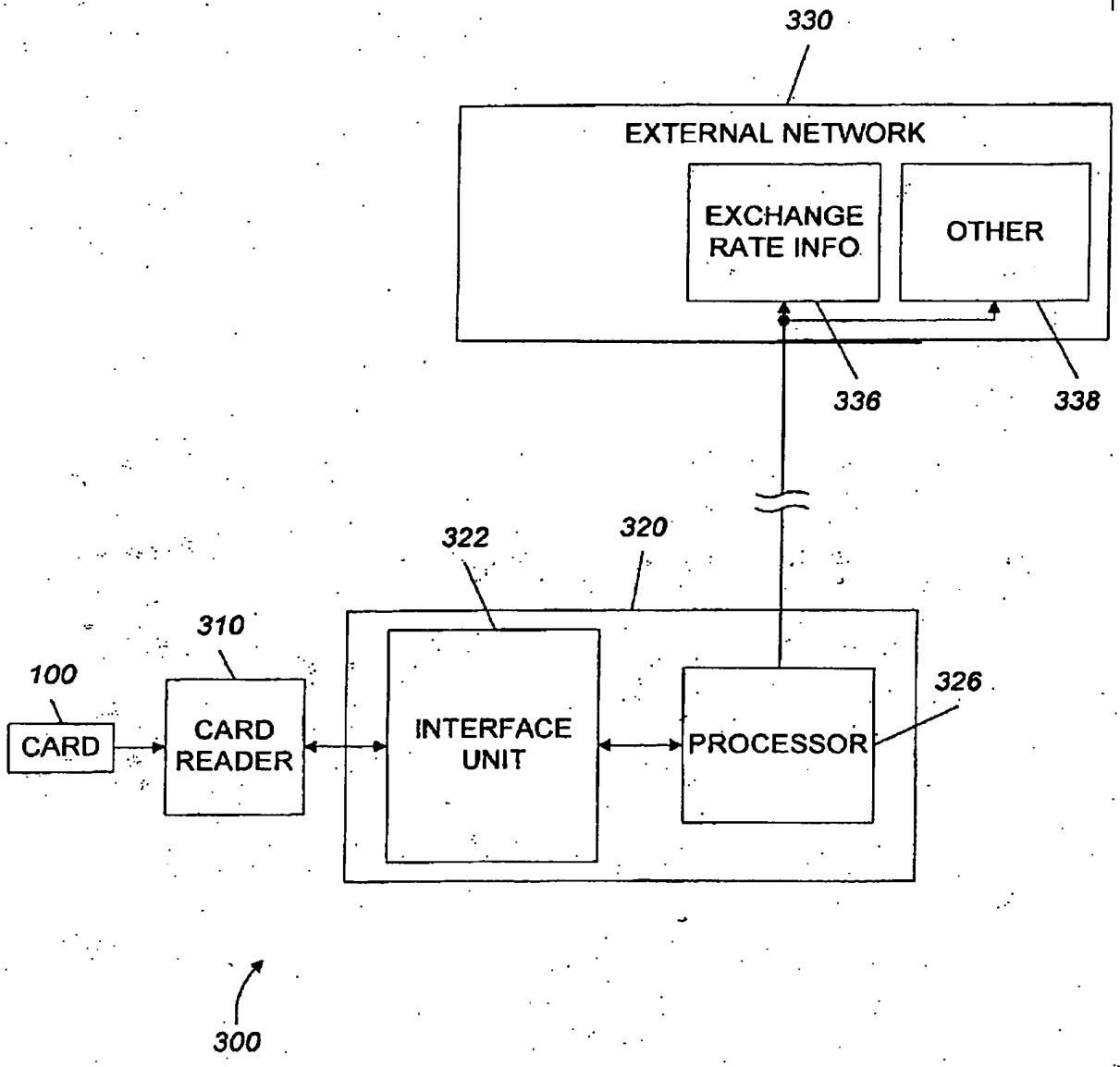

330
EXTERNAL NETWORK
EXCHANGE RATE INFO
OTHER
336
338
322
320
310
100
CARD
CARD READER
INTERFACE UNIT
PROCESSOR
326
300

FIG. 3

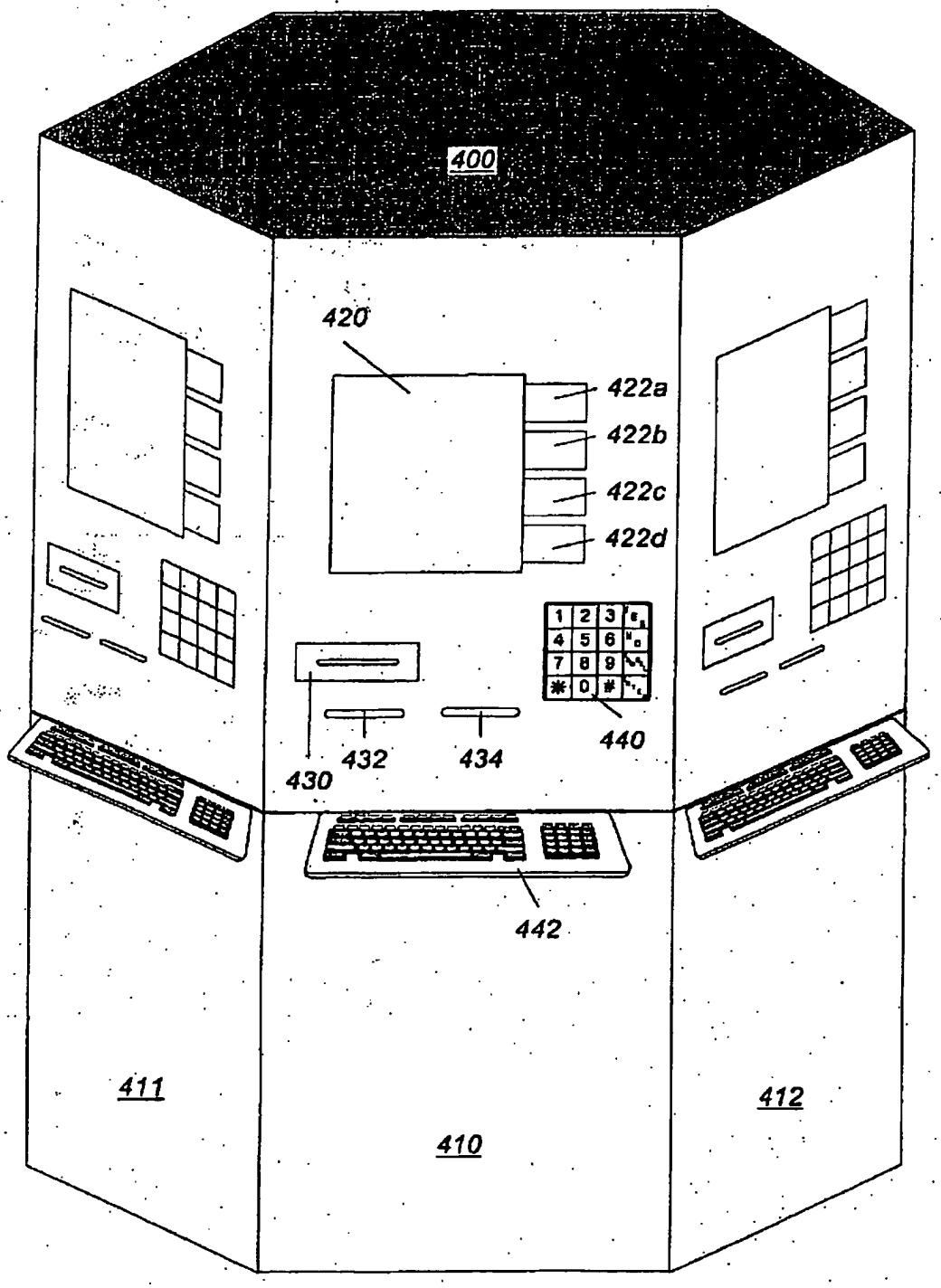

400
420
422a
422b
422c
422d
1 2 3
4 5 6
7 8 9
* 0 #
430
432
434
440
442
411
410
412

FIG. 4A

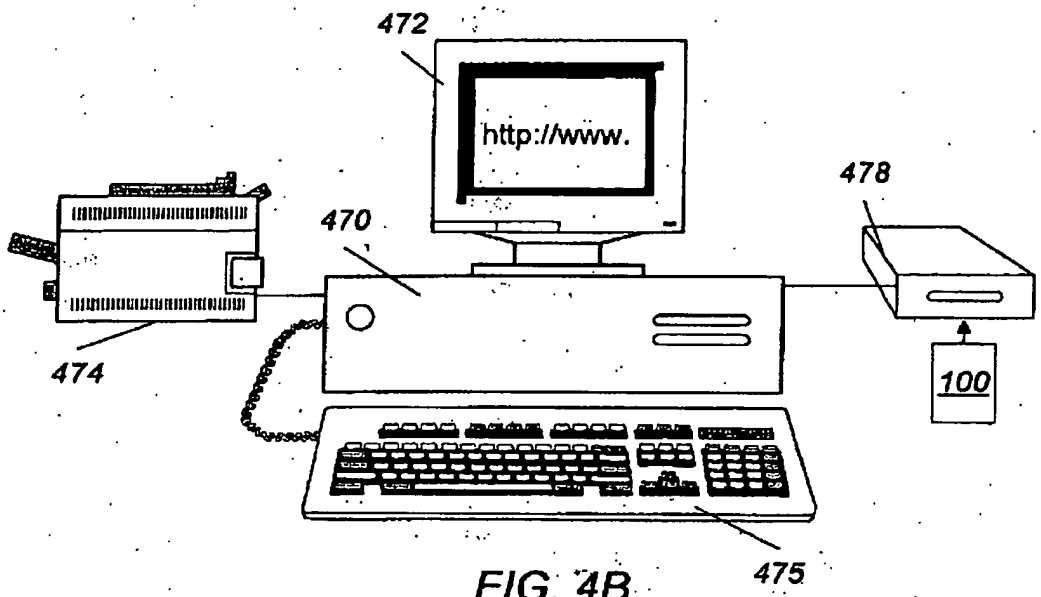
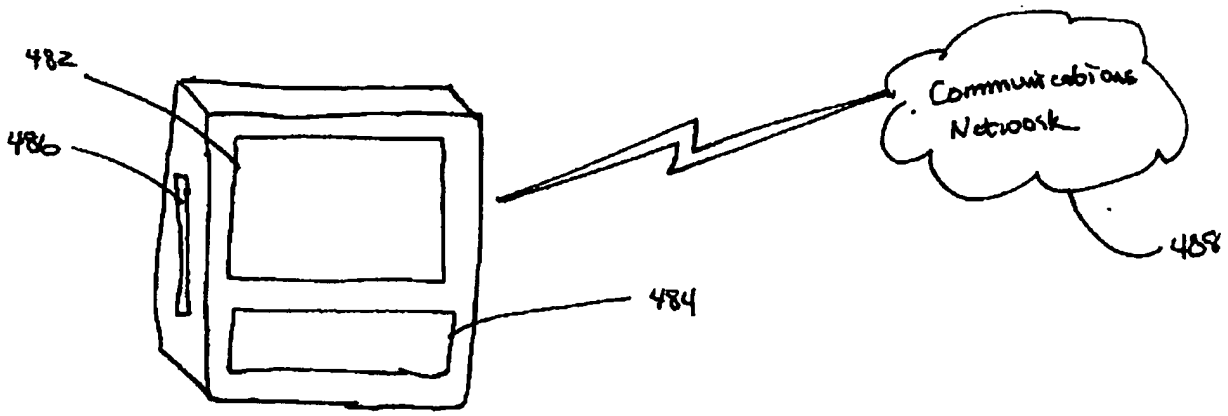
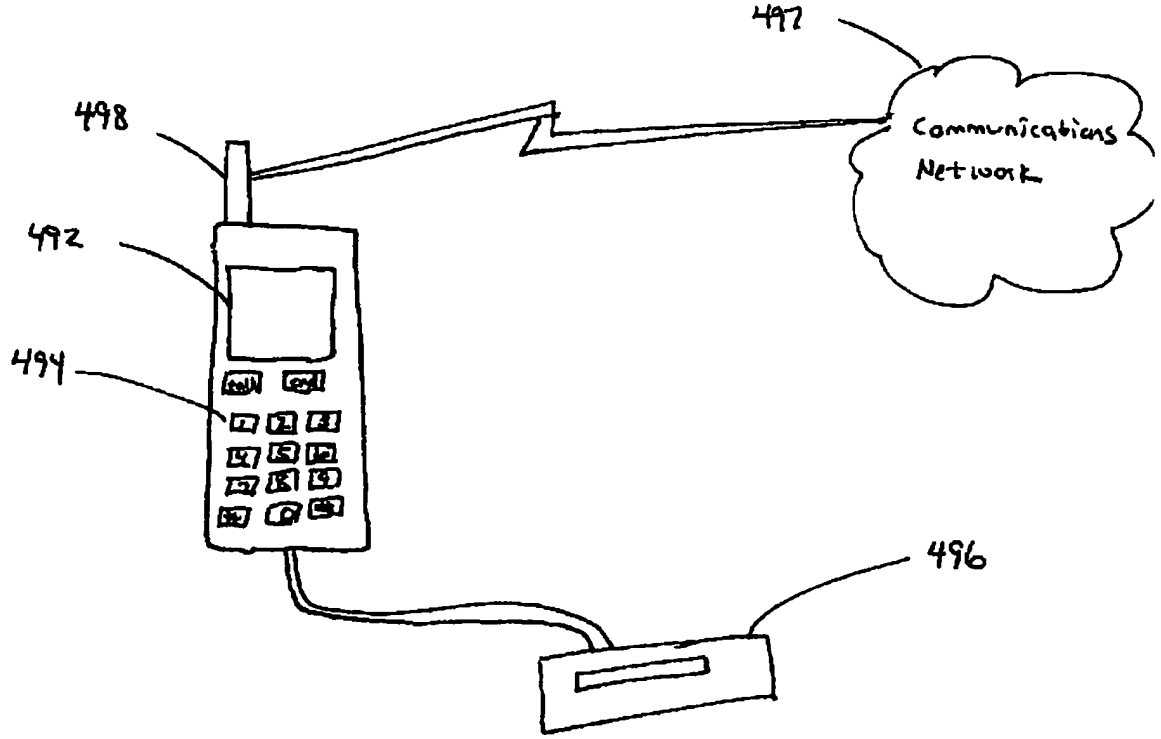


FIG. 4B



480

FIG. 4C



490

FIG. 4D

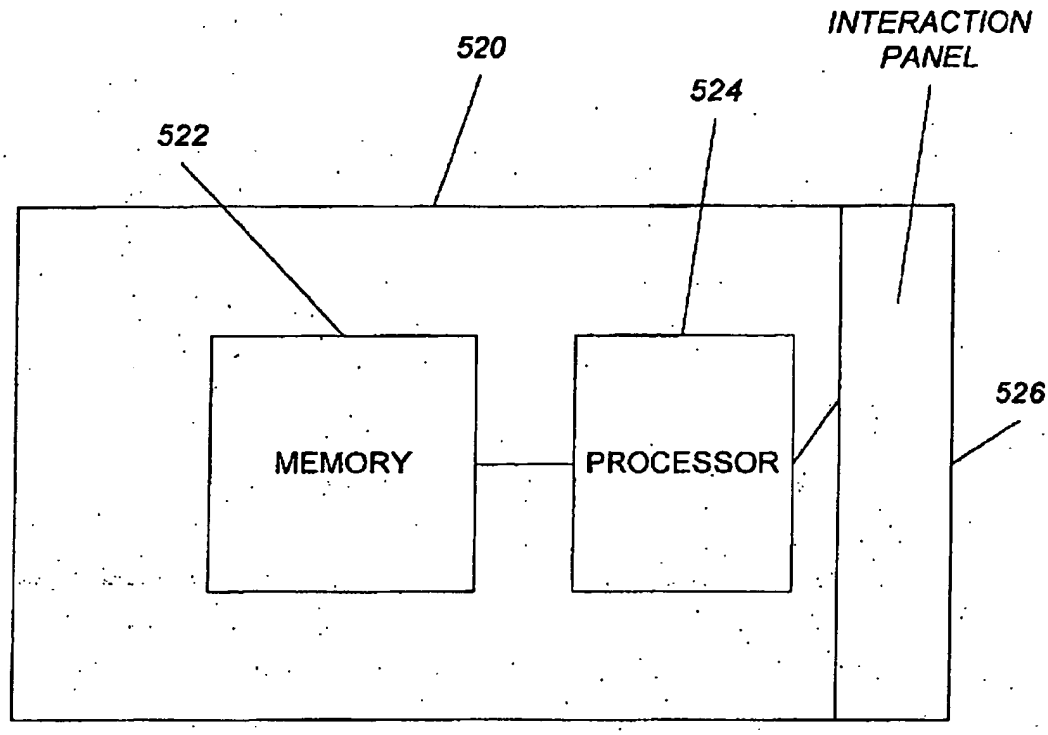


FIG. 5

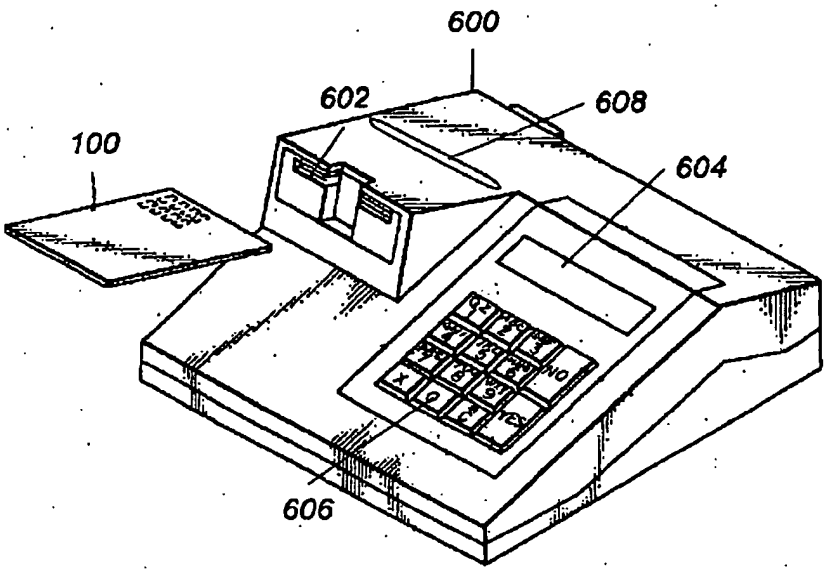
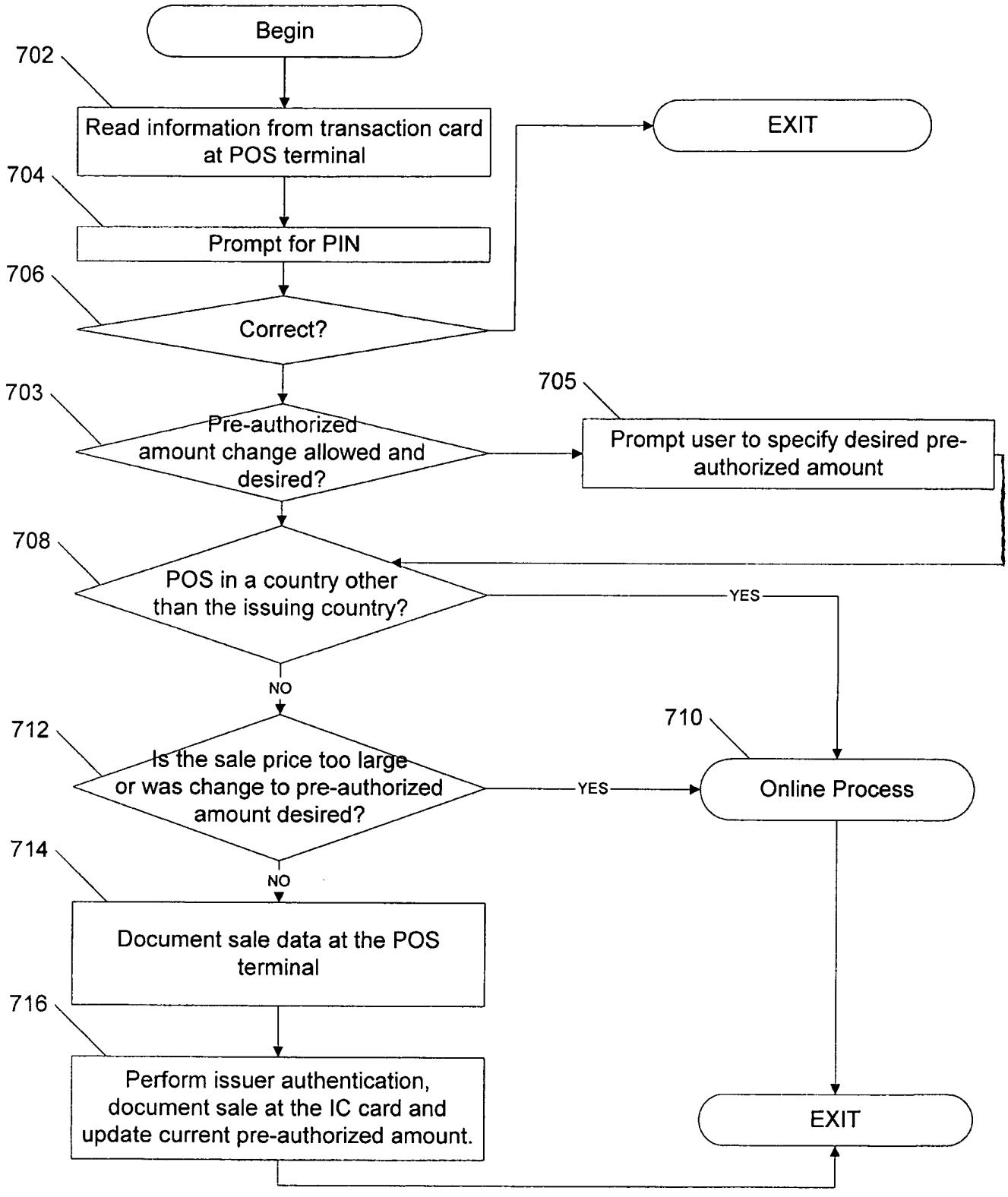
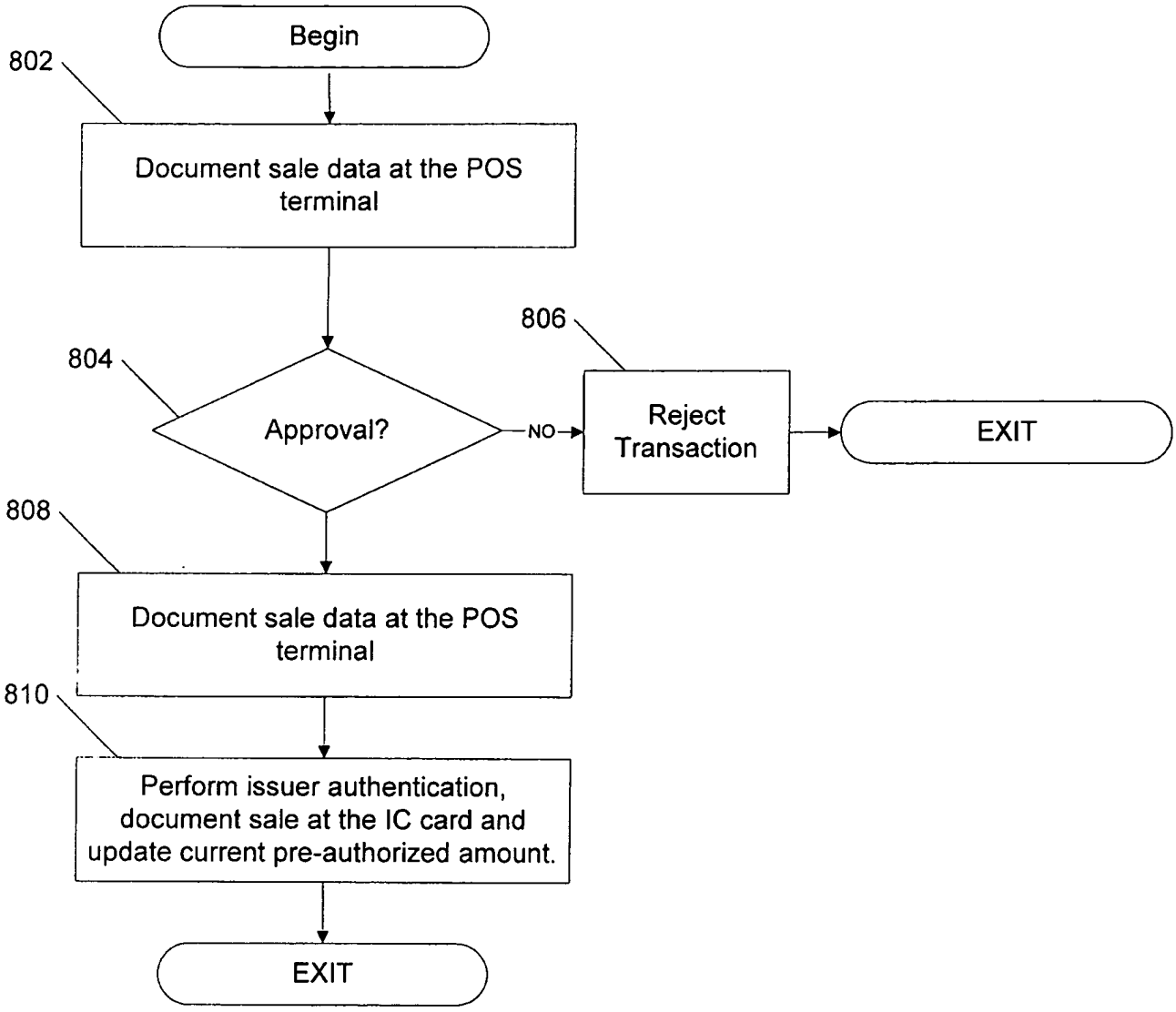


FIG. 6


Begin
702
Read information from transaction card at POS terminal
EXIT
704
Prompt for PIN
706
Correct?
703
Pre-authorized amount change allowed and desired?
705
Prompt user to specify desired pre-authorized amount
708
POS in a country other than the issuing country?
YES
NO
712
Is the sale price too large or was change to pre-authorized amount desired?
YES
710
Online Process
714
NO
Document sale data at the POS terminal
716
Perform issuer authentication, document sale at the IC card and update current pre-authorized amount.
EXIT

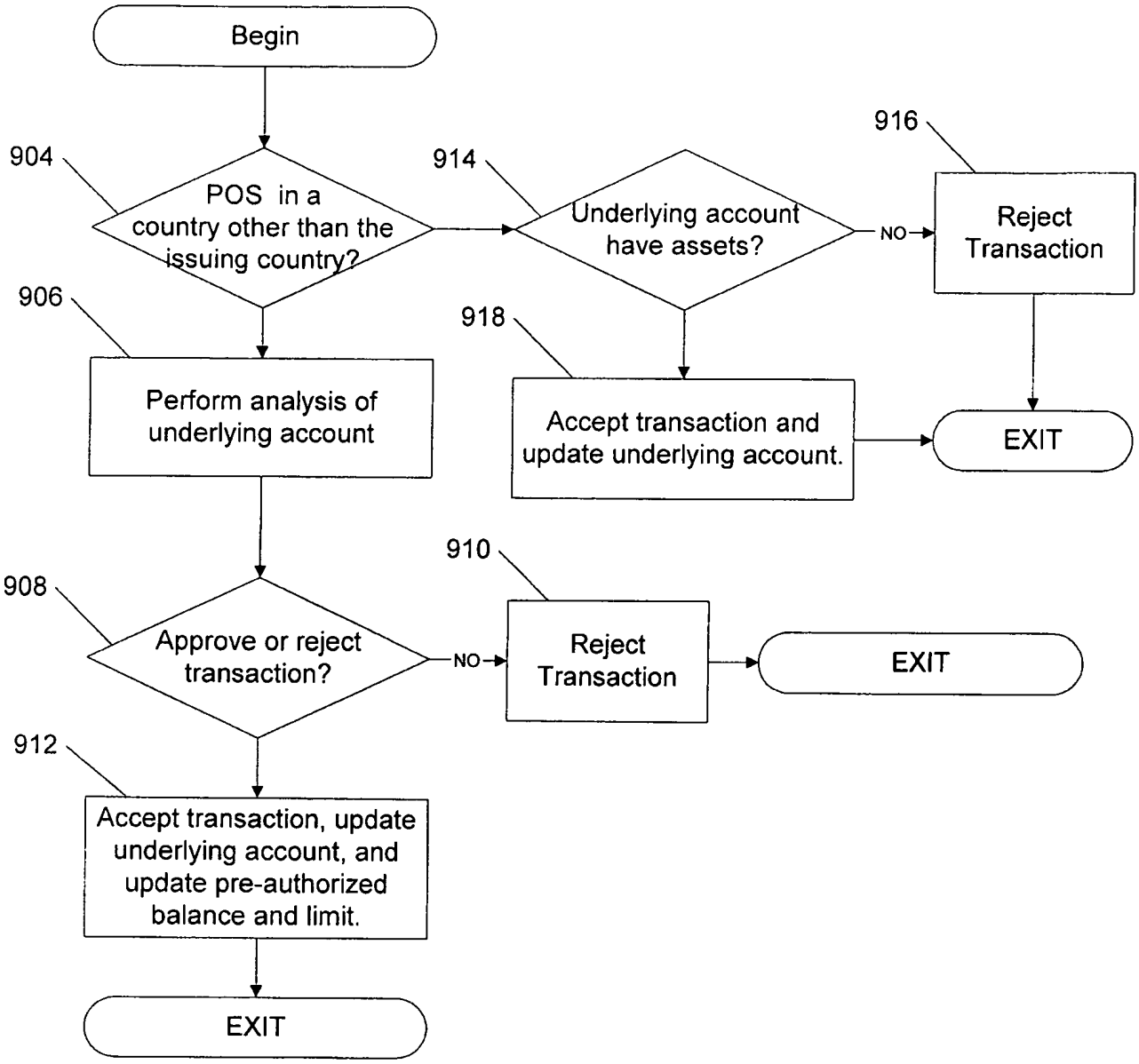
700

FIG. 7


Begin
802
Document sale data at the POS terminal
804
Approval?
NO
806
Reject Transaction
EXIT
808
Document sale data at the POS terminal
810
Perform issuer authentication, document sale at the IC card and update current pre-authorized amount.
EXIT

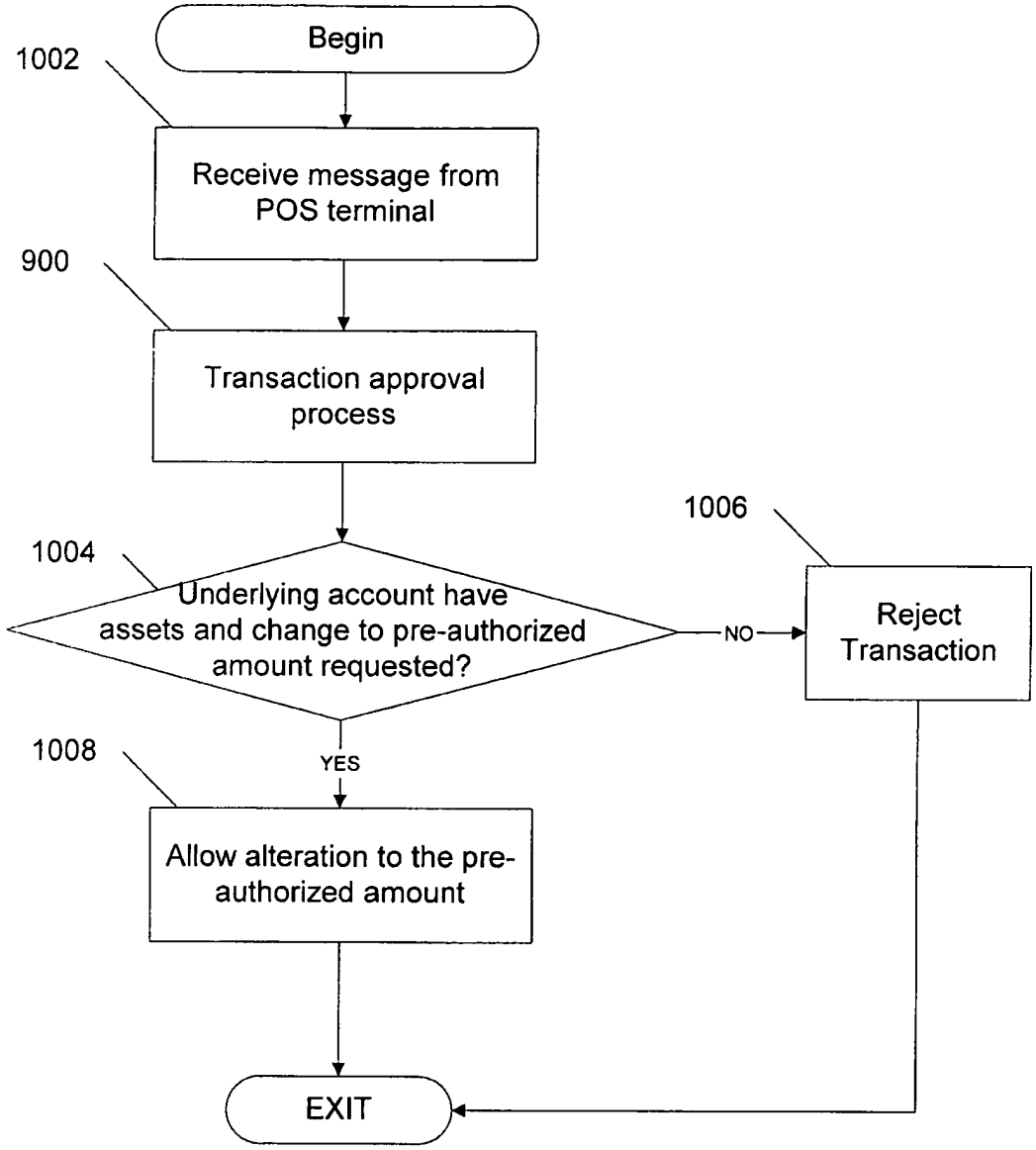
710

FIG. 8


Begin
904
POS in a country other than the issuing country?
914
Underlying account have assets?
NO
916
Reject Transaction
906
Perform analysis of underlying account
918
Accept transaction and update underlying account.
EXIT
910
908
Approve or reject transaction?
NO
Reject Transaction
EXIT
912
Accept transaction, update underlying account, and update pre-authorized balance and limit.
EXIT

900

FIG. 9


Begin
1002
Receive message from POS terminal
900
Transaction approval process
1004
Underlying account have assets and change to pre-authorized amount requested?
NO
1006
Reject Transaction
YES
1008
Allow alteration to the pre-authorized amount
EXIT

1000

FIG. 10